

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in this application: Please cancel claims 1-56 without prejudice.

Listing of Claims:

Claims 1-56 (cancelled)

01 Claim 57 (new): An isolated DNA sequence encoding an insecticidal Cry2Ae protein consisting of the amino acid sequence of the protein of SEQ ID NO: 2 from amino acid position 1 to an amino acid position between amino acid position 625 and amino acid position 632.

Claim 58 (new): An isolated DNA sequence encoding an insecticidal Cry2Ae protein consisting of the amino acid sequence of the protein of SEQ ID NO: 2 from an amino acid position between amino acid position 1 and amino acid position 50 to amino acid position 632.

Claim 59 (new): An isolated DNA sequence encoding the protein of SEQ ID NO: 8.

Claim 60 (new): A DNA sequence comprising the coding sequence of SEQ ID NO: 7.

Claim 61 (new): A DNA sequence comprising the coding sequence of SEQ ID NO: 9.

Claim 62 (new): The DNA sequence of any one of claims 57-61, wherein said DNA sequence encodes a protein which is modified to start with a Met-Asp or Met-Ala dipeptide.

Claim 63 (new): A chimeric gene comprising the DNA sequence of claim 57, wherein said DNA sequence is under the control of a promoter which can direct expression of the gene in a plant cell.

Claim 64 (new): The chimeric gene of claim 63, further comprising a DNA encoding a targeting or transit peptide for targeting to the vacuole, mitochondrion, chloroplast, plastid, or for secretion.

Claim 65 (new): A plant cell, plant or seed transformed to comprise the chimeric gene of claim 63.

Claim 66 (new): A plant cell, plant or seed transformed to comprise the chimeric gene of claim 64.

Claim 67 (new): The plant cell, plant or seed of claim 65, wherein said cell, plant or seed are of corn, cotton, rice, tobacco, oilseed rape, *Brassica* species, eggplant, soybean, potato, sunflower, tomato, sugarcane, tea, beans, strawberry, clover, cucumber, watermelon, pepper, oat, barley, wheat, dahlia, gladiolus, chrysanthemum, sugarbeet, sorghum, alfalfa, or peanut.

Claim 68 (new): The plant cell, plant or seed of claim 66, wherein said cell, plant or seed are of corn, cotton, rice, tobacco, oilseed rape, *Brassica* species, eggplant, soybean, potato, sunflower, tomato, sugarcane, tea, beans, strawberry, clover, cucumber, watermelon, pepper, oat, barley, wheat, dahlia, gladiolus, chrysanthemum, sugarbeet, sorghum, alfalfa, or peanut.

Claim 69 (new): A process for rendering a plant resistant to *Helicoverpa armigera*, *Anticarsia gemmatilis*, or *Sesamia nonagrioides*, comprising transforming plant cells with the chimeric gene of claim 63, or a chimeric gene comprising a DNA encoding the protein of SEQ ID NO: 2 or an insecticidally-effective fragment thereof, and regenerating transformed plants from such cells.

Claim 70 (new): A process for rendering a plant resistant to *Chilo suppressalis*, *Chilo partellus*, *Scirpophaga incertulas*, *Sesamia inferens*, *Cnaphalocrocis medinalis*, *Marasmia patnalis*, *Marasmia exigua*, *Marasmia ruralis*, or *Scirpophaga innotata*, comprising transforming plant cells with the chimeric gene of claim 63 or a chimeric gene comprising a DNA sequence encoding the protein of SEQ ID NO: 2 or an insecticidally-effective fragment thereof, and regenerating transformed plants from such cells.

Q1 Claim 71 (new): A chimeric gene comprising:

- (a) a 35S promoter derived from Cauliflower Mosaic Virus or a S7 promoter derived from Subterranean Clover Stunt Virus;
- (b) a leader sequence from the chlorophyll a/b binding protein gene from Petunia; and
- (c) the DNA of claim 57, or a DNA encoding the protein of SEQ ID NO: 2 or an insecticidally-effective fragment thereof.

Claim 72 (new): The chimeric gene of claim 71, wherein said chimeric gene also contains a DNA sequence encoding the TpssuAt transit peptide.

Claim 73 (new): The chimeric gene of claim 71 or 72, wherein said chimeric gene also comprises a 3' transcript termination and polyadenylation region of the 35S gene from Cauliflower Mosaic Virus.

Claim 74 (new): The chimeric gene of claim 57, further comprising a DNA sequence encoding the protein of SEQ ID NO: 2 or an insecticidally-effective fragment thereof under the control of a promoter whose expression in plants is inducible by insect feeding.

Claim 75 (new): A cotton plant or seed comprising a first chimeric gene encoding the protein of SEQ ID NO: 2 or an insecticidally-effective fragment thereof, and a second chimeric gene encoding an insecticidal protein selected from: a Cry1F protein, toxic fragments or hybrids derived from a Cry1F protein, a Cry1Ac protein, or a VIP3Aa protein or a toxic fragment thereof.

Claim 76 (new): A process for rendering a plant resistant to an insect, comprising transforming plant cells with the chimeric gene of claim 71, 72, or 74, and regenerating transformed plants from such cells which are resistant to insects.

Claim 77 (new): A method for controlling insects comprising expressing in transformed plant cells an insecticidally-effective amount of a protein encoded by the DNA of any one of claims 57 to 61, to control: *Heliothis virescens*, *Helicoverpa zea*, *Helicoverpa armigera*, *Anticarsia gemmatilis* and *Ostrinia nubilalis*, *Chilo suppressalis*, *Chilo partellus*, *Scirpophaga incertulas*, *Sesamia inferens*, *Cnaphalocrocis medinalis*, *Marasmia patnalis*, *Marasmia exigua*, *Marasmia ruralis*, or *Scirpophaga innotata*.

Claim 78 (new): The cotton seed or plant of claim 75, wherein said toxic fragments or hybrids derived from Cry1F protein comprise Cry1A-Cry1F protein.

RESTRICTION REQUIREMENT

In the Office Action of March 7, 2003, the Examiner requested restriction to one of the following inventions under 35 U.S.C. § 1.121.

- I. Claims 1-12 and 22-56, drawn to a nucleic acid encoding an insecticidal protein, a chimeric gene comprising the nucleic acid, plants, plant cells and seeds comprising the chimeric gene and a method of using it to make plants resistant to insects; and
- II. Claims 13-21, drawn to an insecticidal protein.

Applicants hereby elect Group I, claims 1-12 and 22-56, drawn to a nucleic acid encoding an insecticidal protein, a chimeric gene comprising the nucleic acid, plants, plant cells, and seeds comprising the chimeric gene and a method of using it to make plants resistant to insects, without traverse. Newly added claims 57-78 more clearly recite the claimed subject matter and are within the scope of Group I.